

# **REQUEST FOR PROPOSALS**



**UTAH DEPARTMENT OF TRANSPORTATION**

## **SR-114; Geneva Road, Roadway Widening**

**Project No.**

**F-0114(21)0**

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### **INSTRUCTIONS TO PROPOSERS**

### **APPENDIX A: TECHNICAL PROPOSAL INSTRUCTIONS**

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**Draft**

**July 1, 2010**



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## ITP-A1—GENERAL INSTRUCTIONS

This Appendix A provides specific instructions for preparing Technical Proposals for the Utah Department of Transportation (Department) SR-114: Geneva Road, Roadway Widening Project.

The Proposer shall submit the information required by this Appendix A of the Instructions to Proposers (ITP) in the organization and format specified herein.

**Organization.** Organize the Technical Proposal in separate volumes, in accordance with Table ITP-A-1 (Outline for Submittal of Technical Proposal).

**Incorporation into Contract.** The Department will use all Proposal information submitted for evaluating the Proposals and determining the successful Proposer. For the successful Proposer the Proposal information in Volumes 2 through 6 will become Part 10 of the Contract Documents.

**Forms.** All forms named herein are found in Appendix ITP-C, unless otherwise noted.

**Text, Typefont, and Pages.** Text shall be in English in a standard font, a minimum of 10 points in height, and single-spaced. Text pages shall be 8½ -inch x 11-inch white paper, with simple lettered or numbered dividers for each section. Number each page in each volume consecutively (i.e., 1-1, 1-2,...; 2-1, 2-2...; etc.), and center page numbers at the bottom of each page.

**Nontext Items.** Submit drawings and sketches on 11-inch x 17-inch and/or 8 ½ -inch x 11-inch white paper. Submit schedule plots on 24 -inch x 36 -inch or 22 -inch x 34 -inch paper, folded and inserted in an envelope or a similar holder that is incorporated into the volume. Organizational charts can be submitted on 11-inch x 17 -inch paper.

Color photographs, renderings, and brochures shall be adequately bound and suitably protected for handling and circulation during review.

**Page Limit.** Limit Volumes 2 through 5 to a combined total of 75 pages (if double-sided, 38 sheets), exclusive of tabbed dividers, cover letters, the executive summary, calculations, specifications, drawings, resumes, required forms, appendices, and exhibits containing required forms, graphs, matrices, schedule, and the draft Quality Management Plan.

No page limit applies to appendices and exhibits; however, the Department does not commit to review any information in appendices and exhibits other than those it requires to be provided, and the Proposal evaluation process will focus on the body of the Proposal and any required appendices and exhibits.

**Readability.** Present information clearly and concisely. Documentation that is difficult to read may be rejected and may lead to disqualification.

**Reproducibility.** The information shall be easily reproducible by normal black and white photocopying machines.

**Submittal.** Provide one original and fifteen copies of the complete Proposal. The Proposal shall be provided in three-ring binders, with each binder within each set numbered in “X of Y” fashion. Also provide one copy of the complete Proposal in electronic format on CD or DVD, with a separate PDF file for each Proposal volume section as shown in Table ITP-A-1.

## ITP-A2—EXECUTIVE SUMMARY AND SUMMARY STATEMENT

The Executive Summary and Summary Statement are intended for presentation to, and review by, Department senior management prior to selection of the Design-Builder, and may be released to the news media after selection. Therefore, these documents shall not include any information regarding price or any other sensitive or confidential information.

### ITP-A2.1 EXECUTIVE SUMMARY

The Executive Summary shall contain sufficient information to familiarize reviewers with the Proposer's Project approach and its ability to satisfy the legal requirements of the Contract. Highlight those items that, in the opinion of the Proposer, represent significant value to the Department and that may distinguish the Proposal from others.

**Page Limit.** Limit the Executive Summary to no more than 10 pages, inclusive of text, selected photographs, and/or sketches.

**Content.** At a minimum, the Executive Summary shall include the following sections:

- A. **Legal.** A description of the Proposer's form of organization, identifying the percentage interest held by each of the Principal Participants with a direct equity interest in the Proposer, the lead entity, and all entities that will have joint and several liability for the Contract or that will provide guaranties (if required) to the Department.
- B. **Financial.** Information regarding Proposer's financial strength and capability of undertaking and completing the Work.
- C. **Experience and Qualifications.** Summary of key personnel.
- D. **Management Approach.** Summary of the management approach and concepts to be utilized in connection with the Work, specifically addressing:
  - 1. The proposed organizational and communication structure, identification of all Principal Participants and other key firms, and descriptions of their roles on the Proposer's team;
  - 2. Summary of the proposed Project Controls and Proposal Baseline Schedule, including discussion of the Schedule of Milestones, design and construction activities;
  - 3. Proposed Project Management Plan and management systems to ensure successful and satisfactory completion and integration of the design and construction Work; and
  - 4. Proposer's Quality Plan and overall commitment to quality.
- E. **Technical Solutions.** Summary of the design concepts and technical challenges to be addressed in connection with the Work, specifically addressing:
  - 1. Roadway and drainage design and construction concepts;
  - 2. Structures and aesthetics design and construction concept;
  - 3. Geotechnical concepts;

4. Utility, Freight, and Transit coordination concepts;
  5. Environmental Compliance approach;
  6. Traffic design approach; and
  7. ATC's and innovation approach.
- F. **Project Support.** Summary of the Project support concepts to be addressed in connection with the Work, specifically addressing:
1. Maintenance of traffic (MOT) Plan;
  2. Safety Plan; and
  3. Public information approach.

## **ITP-A2.2 SUMMARY OF INNOVATION AND ENHANCED QUALITY**

The Proposer shall prepare a summary of no more than three pages that outlines the specific areas in which the Proposer has introduced innovation and provided enhanced quality in long-term performance, durability, or maintainability through the information submitted with its Proposal. The Proposer shall state in the summary the specific sections of the Technical Proposal in which the proposed innovations and enhancements are discussed.

## **ITP-A3—LEGAL AND FINANCIAL INFORMATION**

### **ITP-A3.1 LEGAL INFORMATION FOR VOLUME 1 OF THE TECHNICAL PROPOSAL**

The Proposer shall submit:

A. **Proposal Letter and Related Documents:**

1. Proposal Letter Form, in the form included in Appendix ITP-C, constituting a firm offer to the Department valid for the number of days specified in said form. The Proposal Letter shall be executed by the Proposer and, if the Proposer is a joint venture (JV), shall also be individually signed by each JV member. The Proposer shall include evidence of authorization for each signatory, as described in Section ITP-A3.2.1;
2. If the Proposer is a JV, joint and several liability statements signed by each JV member and stating that the JV member shall be jointly and severally liable for any and all of the duties and obligations of the Proposer assumed under the Proposal and under any Contract arising therefrom, should its Proposal be accepted by the Department. Each JV member shall also agree, for the benefit of the Department, to take such action as may be required to avoid dissolution of the JV while any Contract obligations remain outstanding, unless the Department has agreed in writing to such dissolution; and
3. A form of a guaranty will be provided by the Proposer if requested by the Department, concurrently with execution and delivery of the Contract by the Proposer.

**B. Certifications and Affidavits:**

1. Form NC (Noncollusion Affidavit, in Appendix ITP-C), certifying that the Proposal is not the result of, and has not been influenced by, collusion, signed by the Proposer. If the Proposer is a joint venture, this form must also be submitted by each joint venture member;
2. Form IC (Certification Regarding Debarment, Suspension and Other Ineligibility and Voluntary Exclusion from Transactions Financed in Part by the U.S. Government, in Appendix ITP-C), signed by the Proposer and each Principal Participant; and
3. Form OC (Opinion of Counsel, in Appendix ITP-C), certifying that the Proposal as submitted has been reviewed and all items are genuine, accurate, and complete, and if not originals, are true and correct copies of originals, and that all signatures on such items are genuine.

**C. Subcontractor Information and Certifications:**

1. Form NS (Named Subcontractors, in Appendix ITP-C), identifying Major Subcontractors (Subcontractors performing 5% or more of the value of the Work) and Major suppliers (suppliers providing products and materials valued in excess of 5% of the value of the Work), and including the percentage of the Proposal Price that represents anticipated Subcontractor and supplier participation (not specific dollar value of participation).
2. Form IS (Certification Regarding Ineligible Subcontractors and Debarment, Suspension, Ineligibility, and Voluntary Exclusion of Lower-Tier Covered Transactions, in Appendix ITP-C), signed by each Subcontractor listed on Form NS, except that Principal Participants shall instead provide Form IC, as noted above; and
3. Form LC (Lobbying Certificate, in Appendix ITP-C), signed by the Proposer, each Principal Participant, and each Subcontractor anticipated to be paid \$100,000 or more.

## **ITP-A3.2 LEGAL INFORMATION FOR APPENDIX A TO THE TECHNICAL PROPOSAL**

The Proposer shall submit evidence of authorization, a legal opinion, and organizational documents, as described in this Section ITP-A3.2.

### **ITP-A3.2.1 Evidence of Authorization**

Provide appropriate evidence that the Proposal Letter (in Appendix ITP-C) and joint and several liability statements have been duly authorized and validly executed and delivered. If the Proposer is a JV, each JV member shall provide a notarized document granting a power of attorney to the individual who signed the Proposal Letter on behalf of the Proposer, specifically stating that such individual has authority to execute the Proposal on behalf of the Proposer and to act for and bind the Proposer in all matters relating to the Proposal. Each JV member shall also provide a power of attorney or other evidence of authorization for the individual who signed the Proposal Letter and joint and several liability statements on behalf of the JV member. If any power of attorney states that it is revocable, it



shall specifically state that revocation shall not be effective until written notice has been provided to the Department.

#### **ITP-A3.2.2 Organizational Documents**

Provide organizational documents for the Proposer (i.e., JV agreement, partnership agreement, operating agreement, articles of incorporation and bylaws, or equivalent documents). Such documents shall be consistent with the responsibilities to be undertaken by the Proposer.

#### **ITP-A3.2.3 Stipend Agreement**

The Proposer shall provide an executed Stipend Agreement, Form SA (Stipend Agreement, in Appendix ITP-C).

### **ITP-A3.3 FINANCIAL INFORMATION FOR APPENDIX TO THE TECHNICAL PROPOSAL**

Submit the following financial information for the Proposer, Principal Participants, and any guarantors:

- A. Financial statements for the Proposer and equity members of Proposer for the three most recent fiscal years, audited by a certified public accountant in accordance with generally accepted accounting principles (GAAP). If the Proposer is a newly formed entity and does not have independent financial statements, financial statements for the equity owners will be sufficient (and the Proposer shall expressly state that the Proposer is a newly formed entity and does not have independent financial statements). Financial statements must be provided in U.S. dollars. If audited financials are not available for an equity owner, the Proposal shall include unaudited financials for such member, certified as true, correct, and accurate by the chief financial officer or treasurer of the entity. Required financial statements shall include:
  - i. Opinion Letter (Auditor's Report);
  - ii. Balance Sheet;
  - iii. Income Statement;
  - iv. Statement of Changes in Cash Flow; and
  - v. Footnotes.
- B. If any entity for which financial information is submitted as required hereby files reports with the Securities and Exchange Commission, then such financial statements shall be provided through a copy of their annual report on Form 10K. For all subsequent quarters, provide a copy of any report filed on Form 10Q or Form 8-K which has been filed since the latest filed 10K. Provide information regarding any material changes in financial condition for Proposer and each of its equity members for the past three years and anticipated for the next reporting period. If no material change has occurred and none is pending, the Proposer and/or equity member, as applicable, shall provide a letter from its chief financial officer or treasurer so certifying.
- C. If financial statements are prepared in accordance with principles other than U.S. GAAP, provide a letter from the certified public accountant of the applicable entity,

discussing the areas of the financial statements that would be affected by a conversion to U.S. GAAP, should be provided.

- D. Provide a letter from the chief financial officer or treasurer of the entity or the certified public accountant for each entity for which financial information is submitted, identifying all off balance sheet liabilities.
- E. Proposers are advised that the Department may, in its discretion based upon the review of the information included in the Proposal, specify that an acceptable guarantor is required as a condition of a Proposer's selection, in which event the Proposer will be required to provide information regarding the proposed guarantor as required by the Department, before a decision will be made regarding selection.
- F. Information shall be packaged separately for each separate entity with a cover sheet identifying the name of the organization and its role in the Proposer's organization (i.e., Proposer, equity member or guarantor).
- G. A description of the Proposer's plan to address the Project's cash flow needs, including information regarding any line of credit that will be available for such purpose, the lender(s) providing such credit, and the security for repayment.

## **ITP-A4—EXPERIENCE AND QUALIFICATIONS INFORMATION**

### **ITP-A4.1 EXPERIENCE AND QUALIFICATIONS INFORMATION FOR VOLUME 2 OF THE TECHNICAL PROPOSAL**

Submit Form KP (Key Personnel Information, in Appendix ITP-C).

### **ITP-A4.2 EXPERIENCE AND QUALIFICATIONS EXPERIENCE INFORMATION FOR APPENDIX A OF THE TECHNICAL PROPOSAL**

Submit all required resumes for the key personnel listed on Form KP (Key Personnel Information, in Appendix ITP-C).

## ITP-A5—MANAGEMENT APPROACH INFORMATION

### ITP-A5.1 MANAGEMENT APPROACH INFORMATION FOR VOLUME 3 OF THE TECHNICAL PROPOSAL

#### ITP-A5.1.1 Project Controls

##### ITP-A5.1.1.1 Proposal Baseline Schedule

**Definition.** The term Proposal Baseline Schedule as used herein means the time-scaled, Critical-Path network that depicts Project sections, Schedule of Values items (see Appendix ITP-B, Price Proposal Instructions), Project milestones, and subordinate activities and their respective durations, sequences, and interrelationships, and that represents the Proposer's Work plan for designing, constructing, and completing the Project. The Proposal Baseline Schedule shall form and become the basis of the Project Baseline Schedule to be utilized during the Project as defined in RFP Part 2, Section 00555S. In addition to the schedule required by this Section ITP-A5.1.1.1 and described herein, Proposer shall also submit Form SCD in accordance with the instructions set forth in Section ITP-A5.1.1.3. Proposer shall clearly identify the proposed date for Substantial Completion. Upon award, the proposed Substantial Completion Date will be incorporated into the Contract at Part 2, Section 00555S, Article 1.16. In no event will the Department accept a later date for Substantial Completion than that specified in the RFP Documents.

**No Price Information.** Do not show or submit any price information with the Proposal Baseline Schedule; include price information only in the Price Proposal (see Appendix ITP-B).

The Proposer shall submit:

- A. A Proposal Baseline Schedule for the Project meeting the following requirements:
  - 1. The Proposal Baseline Schedule shall be in color hardcopy format and in Primavera Engineering and Construction electronic format on disk. See RFP Part 2, Section 00555S, for specific requirements and formats, including coding requirements;
  - 2. The Proposal Baseline Schedule shall be consistent with any Department prescribed Project sections, the Schedule of Values items listed on Form SOV (Schedule of Values, in Appendix ITP-C). The Proposer shall develop the schedule to a level of detail sufficient to accurately reflect planned sequences and methods; and
  - 3. The Proposal Baseline Schedule shall reflect that Work included in the Price Proposal for the priced Build Alternative or Full Build, whichever is at or below the construction funding limit, but shall not include any price information.
- B. A stand-alone narrative of sufficient detail to explain the basis of the Proposal Baseline Schedule. The Proposer shall describe activities and how the activities interrelate and how activity durations were determined. At a minimum, include:
  - 1. Basis of and assumptions used in preparing the Proposed Baseline Schedule;
  - 2. Anticipated production rates;

3. Anticipated order and delivery dates of Material and equipment, especially long-lead items;
  4. Restraints, risks, and limitations;
  5. Critical Path activities;
  6. Holidays and other non-Work Days;
  7. Potential problem areas; and
  8. Any coordination required.
- C. A plan for mobilizing Key Personnel, Equipment, Materials, and supplies, consistent with the Proposal Baseline Schedule.
- D. A summary of major risks to the Proposal Baseline Schedule with an explanation of planned contingencies and an approach to dealing with these risks, should they arise.
- E. Brief narrative description of the proposed Project Controls approach, including:
1. Description of Proposer's system for preparing and updating the Project Baseline Schedule; and
  2. Description of the proposed plan to integrate design and subcontract activities into its scheduling and reporting system.

#### **ITP-A5.1.1.2 Substantial Completion Date**

Proposer shall submit a completed Form SCD. Form SCD includes a blank to be filled in by the Proposer for the purpose of establishing the deadline for Substantial Completion of the Project. The date identified on Form SCD will be used to fill in the blank in Part 2, Section 00555S, Article 1.16. In determining this date, the Proposer should account for the fact that the Notice to Proceed may include the Options, and that the date shown on Form SCD will be used for the deadline regardless of the number of Options exercised.

#### **ITP-A5.1.2 Organization**

Note that some components will be rated on a Pass/Fail basis and will not receive technical ratings.

##### **ITP-A5.1.2.1 Single Point of Contact (Pass/Fail)**

Designate a single point of contact and provide the information requested on Form C (Single Point of Contact, in Appendix ITP-C). The single point of contact shall be the Proposer's nominated Project Manager (see Contract Documents Part 2, Section 00555S).

##### **ITP-A5.1.2.2 Commitment of Resources (Pass/Fail)**

Submit Form CR (Commitment To Assign Identified Resources to Project, in Appendix ITP-C), signed by the Proposer's designated Project Principal, providing a written commitment that the resources shown or indicated in the Proposal (including Key Personnel and other staff identified by name, Equipment, Material, supplies, and facilities) will be available and assigned to the Project if the Proposer is awarded the Contract, to the extent such assignment remains within the control of the Proposer.

### **ITP-A5.1.2.3 Organization Charts, Staff, and Office Locations**

Submit:

- A. An organization chart showing the Key Personnel as required and listed in Volume 3
- B. An organization chart reflecting the roles and responsibilities of the Principal Participants and Named Subcontractors;
- C. Description of those categories of Work that the Proposer anticipates will be performed by the Proposer's own forces and those categories that will be performed by Subcontractors;
- D. Plans and procedures for management of Subcontractors;
- E. Organization chart showing proposed design organization and indicating responsibilities and organization of the design staff (**Pass/Fail**);
- F. Organization chart(s) showing proposed construction organization and indicating responsibilities and organization of the construction staff (**Pass/Fail**).
- G. Organization chart showing the planned Quality Control (QC) organizations (design and construction), including names of the individuals within the Proposer's organization to whom the QC staff will report (**Pass/Fail**).
- H. Organization chart showing the planned safety organization and its relationship to the Proposer's organization and indicating roles and responsibilities of safety staff (**Pass/Fail**).
- I. City and state where assigned staff will be located, particularly the design staff.
- J. Address of office(s) where Work will be done in the Project vicinity (**Pass/Fail**).

### **ITP-A5.1.3 Project Management Plan**

#### **ITP-A5.1.3.1 Quality Control Proposal**

Submit:

- A. A draft Quality Management Plan (QMP) that complies with Contract Documents Part 3—Quality Program and that describes at least the following:
  - 1. The Technical procedures for the Work;
  - 2. How the Proposer will ensure that:
    - a. All disciplines, aspects, and elements of the Work comply with the requirements of the Contract Documents;
    - b. All materials incorporated into the Work perform satisfactorily for the purpose intended;
    - c. Documentation procedures are followed;
    - d. Reports are prepared and distributed;
    - e. Fair and reasonable payment is made and certified; and
    - f. Design Reviews with Utilities and Third Parties are coordinated; and
  - 3. The quality checkpoints (QCPs), how they are incorporated into the Work

Plan and schedule, and how they will be used to assure quality of the Work.

- B. A narrative describing:
1. The relationships between the Design-Builder and the Department;
  2. The authority of the Design-Builder to control the quality of the Work;
  3. Plans for mobilizing the quality organization to be responsive to the Proposal Baseline Schedule;
  4. The key staff positions and their responsibilities, qualifications, and how they relate to the Design-Builder's organization;
  5. How design and construction activities performed by different firms will be coordinated to ensure consistency and quality.

#### **ITP-A5.1.3.2 Approach to Dispute Avoidance and Issue Resolution**

Submit:

- A. A statement detailing Proposer's philosophy and approach for dispute avoidance and/or issue resolution.
- B. At least three one-page summaries of experience on previous projects comparable to this Project that illustrate how this philosophy and approach were successfully applied to the benefit of the Project Owner and Proposer.
- C. Current name and telephone number of an owner/client representative for each of the projects who may be contacted for verification.
- D. A statement signed by the designated representative of each Principal Participant indicating each Principal Participant's agreement to the philosophy and approach of minimizing disputes and facilitating dispute resolution (**Pass/Fail**).

#### **ITP-A5.1.3.3 Design Management**

Submit:

- A. Form DU (Design Unit Descriptions, in Appendix ITP-C) showing Proposer's plan for dividing the Project sections and/or the Project into distinct Design Units (segments) that will facilitate the construction process.
- B. A brief narrative describing the following:
  1. The Proposer's concept of design management;
  2. The total design staffing required;
  3. The plan for addressing constructability, durability, maintainability, safety, aesthetics, and environmental compliance in the design process;
  4. The plan for integrating, coordinating, and fast-tracking the design and construction activities;
  5. How the designs developed by different firms and/or offices will be integrated; and
  6. How the design personnel will integrate with the construction organization.
- C. A summary of the Design Review Plan that outlines how the Proposer will facilitate

and implement Design Reviews as set out in Contract Documents Part 3—Quality Program, including the following:

1. Identification of design reviews planned for each Design Unit;
2. Summary of the level of completion anticipated at each design review in terms of components designed (not just percentage complete);
3. Summary of how Working Plan reviews and field design changes will be conducted; and
4. A description of how the Designer and the design staff will be involved during construction.

#### **ITP-A5.1.3.4 Construction Management**

Submit the following:

- A. A brief narrative describing the Proposer's proposed construction management plan, including:
  1. The Proposer's overall construction management strategy, describing: construction segments; field office locations; lay-down areas; logistics; hauling; site access; phasing with design; minimizing public impact and disruptions, including a summary of how the Proposer plans to handle construction impacts as they relate to surrounding communities; and integration of QC and environmental compliance into all construction activities;
  2. Proposed construction staging and phasing plan, indicating timing and sequencing of major activities for the Project, emphasizing dividing the Project into Work segments (Design Units) to match the proposed design process such that all Work can be accomplished in a Work zone as expeditiously as possible; and
  3. How Proposer plans to deal with unusual traffic events, such as those that may be caused by accident in the vicinity of the Project.
- B. A brief narrative describing Process Quality Control and how it will interact with the Department.
- C. Construction start date in days after Notice To Proceed (NTP) and time to complete.

#### **ITP-A5.1.3.5 Disadvantaged Business Enterprise (DBE) Participation**

Submit the following, all in accordance with the requirements found in Contract Documents Part 5, Section 00415S:

- A. DBE Performance Plan; and
- B. Form DBE (DBE Information, Good Faith Efforts and Affidavit), in Appendix ITP-C.

## ITP-A6—TECHNICAL SOLUTIONS INFORMATION

### ITP-A6.1 TECHNICAL SOLUTIONS INFORMATION FOR VOLUME 4 OF THE TECHNICAL PROPOSAL

In the portions of the Technical Proposal provide a response to each of Section A6.1 indicate and describe features of the proposed design, construction methods, and/or Material offered by the Proposer that will:

- A. Improve the long-term performance of Project elements, particularly:
  - 1. Pavement;
  - 2. Drainage;
  - 3. Geotechnical;
  - 4. Retaining and bridge structures;
  - 5. Utilities;
  - 6. Striping and markings;
  - 7. Signals; and
  - 8. Structures;
    - a. Minimize impact on the environment;
    - b. Minimize impact on the public; and
    - c. Enhance aesthetic features.
- B. Enhance the maintainability of the Project;
  - 1. Minimize maintenance costs; and
  - 2. Minimize interruptions in service or traffic for maintenance.
- C. Provide for public safety.

Technical solutions should be discussed for the priced Build Alternative or the Full Build, whichever is at or below the construction funding limit. The Technical Proposal shall identify the Full Build or which of the Build Alternates is being discussed.

#### ITP-A6.1.1 Roadway

Submit the design information specified in Sections A6.1.1.1 through A6.1.1.3.

##### ITP-A6.1.1.1 Drainage

Prepare and submit:

- A. **Drainage Concept Plan.** The Drainage Concept Plan should emphasize the design and construction procedures, methods, assumptions, data sources, and software that the Design-Builder will use for this Project; include discussion of the following:
  - 1. Drainage discharge requirements, retention areas, restrictions, and water quality and treatment requirements for roadway drainage;



2. Best Management Practices (BMPs), storage facilities, outfalls, and erosion controls;
  3. Other environmental constraints identified by the Department, the Design-Builder, permitting agencies, and environmental documentation;
  4. Natural waterways;
  5. Groundwater and surface water discharge during construction, BMPs, and Stormwater Pollution Prevention Plan (SWPPP); and
  6. Existing drainage facilities, storm drain systems, culverts, siphons, and waterways.
- B. **Storm Water Management Facilities Plan.** The plan should describe how the design and construction of the new facilities will satisfy the requirements of the Utah State Engineer's Stream Alterations Permit, the Utah Division of Water Quality (UDWQ) Construction Permit for new storm drains, the Utah Pollution Discharge Elimination System (UPDES) Storm Water Permit for Construction, and other local, State, and Federal requirements.
- C. **Preliminary Plans.** The preliminary drainage plans should describe proposed general locations for all drainage facilities and proposed pipe materials and should provide an estimated number of catch basins, cleanouts, and other appurtenances. The preliminary plans do not need to show the final locations of cleanouts or catch basins.

#### **ITP-A6.1.1.2 Pavement Design Concepts**

Prepare and submit:

- A. Plans to accommodate, if necessary, anticipated settlements; proposed pavement types; basis of the selection; plans to address the performance parameters of ride quality, skid resistance, durability, structural capacity, and material quality; and plans to address maintainability of pavements and construction sequence as it relates to the Project.
- B. Identification of Proposer's proposed engineer (who will be responsible for the design of the pavement), along with the experience of each in highway pavement design and maintenance.
- C. Describe the pavement used, the advantages and disadvantages, and long-term impacts of the pavement choice. If concrete pavement is used for the Geneva Road, the Department will rate a \$500,000 best-value credit in the Proposal evaluation. Proposals utilizing concrete pavement for portions of the project will be pro-rated accordingly.
- D. Information on proposed methods to handle surface and subsurface drainage.
- E. Information on proposed methods (other than noise walls) to mitigate noise due to the riding surface.
- F. Approach to addressing rutting and shoving at ramp ends and interchanges, including the transitions from structure to pavement and from one pavement type to another.

#### **ITP-A6.1.1.3 Roadway Geometrics**

Prepare and submit a Preliminary Roadway Plan, including provision for Geneva Road, the

interchanges, ramps, and cross streets. Submit the following to support the proposed design:

- A. Roadway plans and profiles showing the proposed design (at a scale of 1"=100' or larger, e.g., 1"=50') and the limits of construction.
- B. Typical sections of mainline, ramp, and cross streets, including median and side treatment details (clear zones, cut/fill slopes, surface ditches, barriers, noise walls, trails, etc).
- C. Striping plans showing mainline, ramp, and cross street lane configurations and the supporting level of service (LOS) analysis.
- D. A description of the proposed changes from the Part 7 - Concept Plans, including the comparative advantages and disadvantages of each and a brief analysis of effects on safety, traffic operations, maintenance operations, cost, schedule, construction staging, MOT, and compliance with the Project design criteria.
- E. A table of design criteria to be used for each roadway.
- F. Description of any design exceptions and any deviations from the UDOT Standard Drawings.

#### **ITP-A6.1.2 Structures**

Prepare and submit:

- A. General summaries that:
  - 1. Describe all structure types proposed for the Project;
  - 2. Describe how the proposed bridge types, materials, and details meet Project requirements for durability, maintenance, corrosion resistance, deck replaceability, seismic performance, etc. to achieve the 75-year service life;
  - 3. Identify the design codes, guide specifications, design manuals, and method(s) of analysis proposed for each structure type;
  - 4. Describe the seismic strategy for each structure type;
  - 5. Describe any creative or innovative ways in which the design, construction, and/or choice of structure type will benefit and/or enhance the time, technical, and cost aspects of the Project;
  - 6. List assumptions used in development of structures;
  - 7. Indicate how aesthetic considerations will be incorporated into structural types; and
  - 8. Describe the strategy for rehabilitating the existing structures as required in the scope of Work.
- B. Concept Plans that:
  - 1. Include a plan view of the Project that identifies the locations and types of all major structures;
  - 2. Provide a Concept Plan for each bridge and structure crossing with a span greater than 20 feet that includes a plan, elevation, and appropriate typical sections; and

3. Describe conceptual solutions for complex structural problems identified by the Proposer.
- C. Descriptions of alternate Bridge types not traditionally used by the Department other than those specified in the Structures Performance Specification, including summaries that:
  1. Justify using the proposed alternate Bridge type (using no more than one page per Bridge type);
  2. List the transportation agencies that have used the proposed Bridge type(s) (including the actual projects and references for each);
  3. Describe the structure seismic strategy; and
  4. Describe deck replacement feasibility, scope, strategies, and processes.
- D. A consistent aesthetics approach and conceptual plan for the entire Project that addresses the requirements set forth in the aesthetics performance specification (in Part 4), including illustrative plans, sections, elevations, and sketches of:
  1. Proposed aesthetic treatments of all walls, Bridge elements, light and signal poles, and paving; and
  2. Light poles and lighting plan.
- E. For each wall proposed for the Project:
  1. Location plan showing all walls and wall types;
  2. Type (for non-cast-in place walls, the name of the system and proprietary name);
  3. The rationale supporting the wall type selection;
  4. Description of any proposed wall types not traditionally used by the Department, including a list of the transportation agencies that have used the proposed wall type(s) (including the actual projects and references);
  5. Description of the methods of accommodating settlement;
  6. Description of the foundation for each wall type; and
  7. Description of proposed aesthetic treatments of all walls.

### **ITP-A6.1.3 Aesthetics and Landscaping**

Not required in the Proposal.

### **ITP-A6.1.4 Geotechnical**

Prepare and submit a Geotechnical Design Plan that establishes its intended approach in meeting the geotechnical design and construction requirements of the Project and demonstrates its understanding of their relevance to the construction of the Project. The Plan shall address the following matters:

- A. **Embankment Settlements.** Describe methods of analyses to predict total, differential, and secondary settlements; mitigation measures (including acceleration methods) together with any special criteria employed to meet or exceed RFP requirements, and a monitoring program.

- B. **Retaining Walls.** Provide intended wall types (including conditions and systems under which other than mechanically stabilized earth [MSE] walls may be considered) that address foundation preparation and stabilization, range of estimated settlements, threshold of estimated settlement where two-stage MSE walls will be used, seismic design approach, and reinforcement corrosion protection measures (where appropriate).
- C. **Bridge Foundations.** Describe methods of analysis to determine capacities of foundation systems, including lateral and uplift capacity under seismic conditions, downdrag, and liquefaction and lateral spreading.
- D. **Instrumentation Plan.** Describe the overall plan to monitor embankment and wall settlements, stability (including pore pressures), and construction-induced vibrations.
- E. **Preconstruction Surveys of Adjacent Structures.** Describe the approach of conducting surveys prior to, during, and following construction activities to assess potential effects of construction-induced settlement and vibrations.
- F. **Geotechnical Investigations.** Explain and provide information on all field investigations that took place for this Proposal.

#### **ITP-A6.1.5 Traffic**

Prepare and submit:

- A. **Traffic Engineering Plan.** The Traffic Engineering Plan should emphasize the design and construction procedures, methods, assumptions, data sources, and software that the Design-Builder will use for this Project; include discussion of the following:
  - 1. Considerations, coordination requirements, and key elements of the Signing Plan;
  - 2. Approach, considerations, coordination requirements, and design software for lighting design; and
  - 3. Approach, methodology, and key considerations for signal design, level of service analysis, and signal warrant analysis.
- B. **Preliminary Plans.** The preliminary traffic plans should describe proposed general locations and features for all traffic engineering facilities including intersection and signal layouts, conduit locations, signing concepts, lighting concepts and ATMS concepts.

#### **ITP-A6.1.6 Environmental Compliance**

Prepare and submit:

- A. A summary of its understanding of the environmental compliance and permitting requirements of the Project.
- B. A summary of the approach, considerations, and key elements of the proposed Environmental Protection Program.
- C. A summary identifying potential BMP's and mitigation strategies to be employed on the Project.
- D. Description of the role of the Proposer's Environmental Control Supervisor and how

that coordinator's knowledge and experience will facilitate full environmental compliance and coordination with regulating agencies.

#### **ITP-A6.1.7 Utilities**

Prepare and submit:

- A. A summary of its understanding of the Utility coordination and cost sharing requirements of the Project.
- B. A summary identifying potential impacts on existing Utility facilities and the anticipated mitigation of those impacts.
- C. Description of the role of the Proposer's Utilities Coordinator (as identified in Form KP, in Appendix ITP-C) and how that coordinator's knowledge and experience will facilitate coordination with Utility Owners.
- D. A schedule for construction as it relates to the Utility and Third-Party facilities within and adjacent to the Project.
- E. A description of how it will interact with each Utility or Third Party and how this interaction will facilitate scheduling of the Work and expedite the preparation of Supplemental Agreements.

### **ITP-A7—PROJECT SUPPORT INFORMATION**

#### **ITP-A7.1 PROJECT SUPPORT INFORMATION FOR VOLUME 5 OF THE TECHNICAL PROPOSAL**

##### **ITP-A7.1.1 Maintenance of Traffic (MOT) Plan**

Prepare and submit a summary of the proposed MOT Plan as specified in the Maintenance of Traffic performance specification, in Contract Documents Part 4, organized into the following sections:

- A. Section A—Construction Staging Plan;
- B. Section B—Traffic Impact Plan;
- C. Section C—Traffic Mitigation Plan;
- D. Section D—School Zone Safety and Pedestrian Access Plan;
- E. Section E—Emergency Vehicle Access and Response Plan;
- F. Section F—Maintenance of Property Access Plan.

##### **ITP-A7.1.2 Safety Plan**

Prepare and submit a Safety Plan for the Project that addresses the following:

- A. Processes and procedures for ensuring public safety during all phases of construction.
- B. Specific approach to ensuring the safety of school children within the construction limits.

- C. Processes and procedures for ensuring safety of Workers throughout the Project duration.
- D. Description of the role of the Proposer's Safety Manager and how that coordinator's knowledge and experience will facilitate safety throughout the Project duration.

### **ITP-A7.1.3 Public Information**

Prepare and submit:

- A. Summary of the Public Information Plan that meets or exceeds the requirements outlined in the public information performance specification in Contract Documents Part 4.
- B. Description of the Public Information team structure, including identification of Key Personnel and a description of interaction with the Department in a team relationship. Provide an approach to crisis communication and strategies to maintain ongoing communication with the following groups:
  - 1. The Department's Public Information team; and
  - 2. Design-Builder's MOT Manager.
- C. An approach to positively affect community relations, including strategies for addressing impacts on the following:
  - 1. Commuter travel;
  - 2. Neighborhoods, as caused by increased traffic, fugitive dust, noise, fugitive light, and construction traffic;
  - 3. Corridor businesses, as caused by roadway closures, detours, increased traffic, fugitive dust, noise, fugitive light, and construction traffic; and
  - 4. Businesses and residents in the vicinity of established alternate routes.

## **ITP-A8—ALTERNATIVE TECHNICAL CONCEPTS (ATCs) AND OPTIONS**

### **ITP-A8.1 ALTERNATIVE TECHNICAL CONCEPT INFORMATION FOR VOLUME 6 OF THE TECHNICAL PROPOSAL**

Prepare and submit:

- A. Summary of the proposed ATCs to be implemented on the Project.
- B. Detailed description of each proposed ATC for the Project. Include the following information:
  - 1. A summary of the proposed ATC and where it will be used on the Project;
  - 2. The benefit to the Department, excluding any information regarding costs;
  - 3. Electronic design files, simulation models, or other electronic items required for analysis of the concept; and

4. Any long-term issues associated with the ATC, including maintenance or repairs.

## ITP-A9—FORMAT AND ORGANIZATION OF THE TECHNICAL PROPOSAL

The Technical Proposal shall be prepared in accordance with Table ITP-A-1 (Outline for Submittal of Technical Proposal), with covers on the Proposal documents entitled as follows:

**Part 10**  
**[NAME OF PROPOSER]**  
**TECHNICAL PROPOSAL**

**Volume \_\_\_\_\_**  
*(Enter title from Table ITP-A-1)*

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**TABLE ITP-A-1**  
**OUTLINE FOR SUBMITTAL OF TECHNICAL PROPOSAL**

<i><b>Proposal Volume Section</b></i>	<i><b>Volume and Section Titles and Required Information</b></i>	<i><b>Reference in App. A</b></i>
	<b>EXECUTIVE SUMMARY AND SUMMARY STATEMENT</b>	<b>A2.1, A2.2</b>
<b>VOL. 1</b>	<b>LEGAL AND FINANCIAL INFORMATION</b>	<b>A3.1</b>
Sec. 1	<u>Proposal Letter Form</u> ; <u>Form NS</u> (Named Subcontractors); and Licensing information. <u>Form NC</u> (Noncollusion Affidavit) <u>Form IC</u> (Certificate Regarding Ineligible Contractors) <u>Form IS</u> (Certificate Regarding Ineligible Subcontractors) <u>Form OC</u> (Opinion of Counsel) <u>Form BAC</u> (Buy America Certificate) <u>Form LC</u> (Lobbying Certificate)	
<b>VOL. 2</b>	<b>EXPERIENCE AND QUALIFICATIONS INFORMATION</b>	<b>A4.0</b>
Sec. 1	<u>Form KP</u> (Key Personnel Information)	A4.1
<b>VOL. 3</b>	<b>MANAGEMENT APPROACH INFORMATION</b>	<b>A5.0</b>
<b>Sec. 1</b>	<b>Project Control</b>	<b>A5.1.1</b>
Sec. 1.1	<u>Proposal Baseline Schedule</u> : Proposal Baseline Schedule (in hardcopy and electronic format); Specified narrative; Plan for mobilizing Key Personnel, equipment, material, and supplies; Summary of major risks; and Project controls approach.	A5.1.1.1
Sec. 1.2	<u>Substantial Completion Date</u> : <u>Form SCD</u> (Substantial Completion Date).	A5.1.1.3

**TABLE ITP-A-1  
OUTLINE FOR SUBMITTAL OF TECHNICAL PROPOSAL**

<b>Proposal Volume Section</b>	<b>Volume and Section Titles and Required Information</b>	<b>Reference in App. A</b>
<b>Sec. 2</b>	<b>Organization</b>	<b>A5.1.2</b>
Sec. 2.1	<u>Form C</u> (Single Point of Contact)	A5.1.2.1
Sec. 2.2	<u>Form CR</u> (Commitment To Assign Identified Resources to Project)	A5.1.2.2
Sec. 2.3	Key Personnel organization chart; An organization chart reflecting the roles and responsibilities of the Principal Participants and Named Subcontractors; Description of self-performed and subcontracted Work; Plans and procedures for managing Subcontractors; Organization chart showing proposed design organization; Organization chart(s) showing proposed construction organization; Organization chart showing the planned QC organizations (design and construction); City and state where assigned staff will be located; Organization chart for safety organization with roles and responsibilities; and Address of office(s) where Work will be done in the Project vicinity.	A5.1.2.3
<b>Sec. 3</b>	<b>Project Management Plan</b>	<b>A5.1.3</b>
Sec. 3.1	<u>Quality Control Proposal:</u> Summary of Quality Management Plan; and Specified narrative.	A5.1.3.1
Sec. 3.2	<u>Approach to Disputes Avoidance and Issue Resolution:</u> Statement of Proposer's philosophy and approach to dispute avoidance and resolution; Three experience summaries; and Statement of agreement regarding approach signed by representatives of all Principal Participants.	A5.1.3.2
Sec. 3.3	<u>Design Management:</u> <u>Form DU</u> (Design Unit Descriptions); Specified narrative; Summary of Design Review Plan; and Description of Designer involvement during construction.	A5.1.3.3
Sec. 3.4	<u>Construction Management:</u> Specified narrative of construction management plan; Plan to deal with unusual traffic events; Construction Staging and Phasing Plan; Specified narrative of Process Quality Control interactions; and Construction start date and time to complete.	A5.1.3.4
Sec. 3.5	<u>Disadvantages Business Enterprise (DBE) Participation</u> DBE Performance Plan; and Form DBE (DBE Information, Good Faith Efforts and Affidavit)	
<b>VOL. 4</b>	<b>TECHNICAL SOLUTIONS INFORMATION*</b>	<b>A6.0</b>
<b>Sec. 1</b>	<b>Roadway</b>	<b>A6.1.1</b>



**TABLE ITP-A-1  
OUTLINE FOR SUBMITTAL OF TECHNICAL PROPOSAL**

<b>Proposal Volume Section</b>	<b>Volume and Section Titles and Required Information</b>	<b>Reference in App. A</b>
Sec. 1.1	<u>Drainage:</u> Drainage Concept Plan; Stormwater Management Facilities; and Preliminary Plans.	A6.1.1.1
Sec. 1.2	<u>Pavement Design Concepts:</u> Pavement Plans; and Specified narratives.	A6.1.1.2
Sec. 1.3	<u>Roadway Geometrics:</u> Preliminary Roadway Plan; and Specified narrative.	A6.1.1.3
<b>Sec. 2</b>	<b>Structures and Aesthetics</b> Specified narrative; Concept Plans; Alternate Bridge Types Not Traditionally Used by the Department; Aesthetics; and Retaining Walls.	<b>A6.1.2</b>
<b>Sec. 3</b>	<b>Geotechnical Approach</b> Geotechnical Design Plan	<b>A6.1.4</b>
<b>Sec. 4</b>	<b>Traffic</b> Specified Narrative Preliminary Plans.	<b>A6.1.5</b>
<b>Sec. 5</b>	<b>Environmental Compliance</b> Specified narratives	<b>A6.1.6</b>
<b>Sec. 6</b>	<b>Utilities</b> Specified narratives	<b>A6.1.7</b>
<b>VOL. 5</b>	<b>PROJECT SUPPORT INFORMATION</b>	<b>A7.0</b>
<b>Sec. 1</b>	<b>Maintenance of Traffic</b> Summary of MOT Plan	<b>A7.1.1</b>
<b>Sec. 2</b>	<b>Safety Plan</b> Specified narratives	<b>A7.1.2</b>
<b>Sec. 3</b>	<b>Public Information</b> Preliminary Public Information Plan; Public Information team structure; and Approach to positively affect community relations.	<b>A7.1.3</b>
<b>VOL. 6</b>	<b>ATC AND OPTIONS INFORMATION</b>	<b>A8.0</b>
<b>Sec. 1</b>	<b>Alternative Technical Concepts (ATCs)</b> Summary of ATCs Detailed description of each ATC	<b>A8.1</b>

**TABLE ITP-A-1**  
**OUTLINE FOR SUBMITTAL OF TECHNICAL PROPOSAL**

<i><b>Proposal Volume Section</b></i>	<i><b>Volume and Section Titles and Required Information</b></i>	<i><b>Reference in App. A</b></i>
<b>APP. A</b>	<b>LEGAL, FINANCIAL, MANAGEMENT APPROACH, TECHNICAL SOLUTIONS, PROJECT SUPPORT, AND ALTERNATE PROPOSALS INFORMATION</b>	
<b>Sec. A.1</b>	<b>Legal Information for Appendix A</b>	<b>A3.2</b>
	Notarized Powers of Attorney;	A3.2.1
	If consortium or joint venture, evidence of joint and severable liability;	A3.2.1
	Organizational Documents; and	A3.2.2
	<u>Form SA</u> (Stipend Agreement).	A3.2.3
<b>Sec. A.2</b>	<b>Financial Information For Appendix A</b>	<b>A3.3</b>
	Financial Statements;	
	Cash Flow Plan; and	
	Additional Financial Documents.	
<b>Sec. A.3</b>	<b>Experience And Qualifications Information For Appendix A</b>	<b>A4.2</b>
	Resumes	A4.2
<i>*Note: All 11 X 17 plan sheets should be bound together separately and do not count towards the page count.</i>		

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